Date: Sat, 8 Oct 94 04:30:16 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: List
Subject: Ham-Ant Digest V94 #336
To: Ham-Ant

Ham-Ant Digest   Sat, 8 Oct 94   Volume 94 : Issue 336

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: 7 Oct 1994 13:40:17 -0500
From: danf@cedar.plexus.com (Dan Fischer)
Subject: Alpha-Delta DX-SWL sloper wxproofing

I have been using one of these antennas for three+ years and
am very happy with performance. This year when I took it down
for winterizing I noticed that the coils are looking pretty
weathered and the coating on the wire is flaking off.

I am not planning of disposing of this antenna but thought
instead of wasting time working on it to get it back up, I
would just order a new one and work on this one over the winter,

or perhap get it done yet this fall and put two up with different orientation.

However, before I put the new one up, I would like to "super-wx-proof" the new one. I know about coax sealer and electrical tape, but I wonder about adding protection for the coils. How about giant heat-shrink tubing or varnish or something like that. Maybe its not even necessary, since the wire they use is enameled wire or something like that.

Just wonder if anyone has as suggestions, tips, warnings...etc...

Appreciate any help.

73

djf

--
Daniel J. Fischer | email:Dan.Fischer@plexus.com | I'd rather |
Technology Group Inc. | Phone/Voicemail: (414) 751-3350 | be fishing!|
P.O. Box 677 +----------+----------+
Neenah,WI,USA 54957-0677 | opinions/comments are mine - no-one else's |

Date: Fri, 7 Oct 1994 19:45:08 GMT
From: davidb@zimmer.CSUFresno.EDU (David Basden)
Subject: Alpha-Delta DX-SWL sloper wxproofing

I have always used clear Krylon spray paint to seal things against the weather. I wrap connections with electrical tape and then spray them well. I see no reason Krylon wouldn't work to weather-proof your coils as well.

Date: 7 Oct 94 15:26:15 GMT
From: CCS_MAH@admin.fandm.EDU (Mark Hemlick Ph. D.)
Subject: Best antenna for 2006

Eddie,

There was an article in Popular Communications last year by a fellow who described a pretty good system for UHF scanning. He lived about 50 miles from New York City and wanted to hear the police in his old neighborhood in (I think) Queens. As I recall, he got a Radio Shack UHF TV corner reflector antenna, mounted it _VERTICALLY POLARIZED_ and pointed toward

NYC. He then got a 70 cm. ham band receiver pre-amp from Hamtronics, fed the antenna into this with a _short run_ of coax, and then 50 ohm coax from the output of the pre-amp to the input of the scanner. He reported that he was able to receive the desired transmissions at full quieting.

I would suspect that this set up might overload the front end of a "cheap" scanner, desensing it or creating unwanted cross-modulation products. But...the 2006 has a pretty good front end as far as scanners go so you might get good results. Good luck!

73 Mark KA3LFG

Date: 7 Oct 1994 08:51:18 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()
Subject: Feeding Yagis

>Yes, when cost is no object, the preferred method is to bring it out behind
>the reflector.

Maybe I am missing something here, but what could possibly be the reason for bringing the cable out behind the antenna and nou along the boom and down the mast, like most people do?

73, Moritz DL5UH

Date: 7 Oct 1994 17:07:36 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()
Subject: Mobile HF Antennas - the search continues

Hi!

Nice to read a posting of someone who knows what he is talking about.

these postings about super-mini wide band DX-antennas, the only disadvantage of which is that they cost a fortune are getting me....

They do however alleviate overcrowding of those narrow bands.

Moritz DL5UH

Date: 8 Oct 1994 00:00:12 -0400
From: jimkd0av@aol.com (JimKD0AV)

Subject: Need help with G5RV

In article <374f4p$6ct@unet.net.com>, johng@yakutat.net.com (John Gratton)
writes:

>Is there anyone who has direct experience with the G5RV that
>can a) tell us how this thing is supposed to work in as fine
>detail as possible, and b) tell us if there is something wrong with
>the design.

John, My experience with the G5RV is limited to Field Day, but I believe
that it is supposed to be used with an antenna tuner (ie, not expected to
have a flat SWR). The nice thing about the G5RV is that it is a simple
multiband antenna and we have used one much as you describe on FD, but
always with a tuner.

73 and GL,
Jim KD0AV

Date: Fri, 7 Oct 1994 15:46:53 GMT
From: dbasinge@nickel.ucs.indiana.edu (Mike Basinger)
Subject: Radio Shack Antennas?

I'm thinking about buy an car antenna for my HTX-202. Are the antennas
they sell at Radio Shack any good, or are they basically junk?

73,
mike
--
D. Michael Basinger [call sign pending]
dbasinge@nickel.ucs.indiana.edu
dbasinge@nations.ucs.indiana.edu (NeXT Mail)
"Not speaking for Indiana University"

Date: 7 Oct 1994 18:48:40 GMT
From: richard.krum@msfc.nasa.gov (Richard M. Krum, KE4GNK)
Subject: Radio Shack Antennas?

In article <CxB7u7.GB4@usenet.ucs.indiana.edu>, dbasinge@nickel.ucs.indiana.edu
(Mike Basinger) says:
>
>I'm thinking about buy an car antenna for my HTX-202. Are the antennas
>they sell at Radio Shack any good, or are they basically junk?
>

>73,
>mike

I have two of their 5/8 wave mag-mounts. They work well. I have been using one for over a year, smacking into tree limbs, getting rained on, whatever. It still works and gets out well. Was very low SWR just assembling and plugging it in.

Your mileage may vary.

--Rich, KE4GNK

****
Usual disclaimers for my casual, non-work-related opinions. I do not speak for CSC or NASA, even on a good day. Your mileage may vary wildly, mine does!
richard.krum@msfc.nasa.gov 10003 Dunbarton Drive
Computer Sciences Corporation Huntsville, AL 35803
PO box 240005 Ham Radio: KE4GNK
Huntsville, AL 35824 147.240-   or 146.520 simplex

Date: 07 Oct 1994 19:42:29 GMT
From: levin@bbn.com (Joel B Levin)
Subject: Radio Shack Antennas?

In article <CxB7u7.GB4@usenet.ucs.indiana.edu> dbasinge@nickel.ucs.indiana.edu (Mike Basinger) writes:
   I'm thinking about buy an car antenna for my HTX-202. Are the antennas
   they sell at Radio Shack any good, or are they basically junk?

I've been very happy with the 5/8 wave magnetic mount antenna. (I have two.) You will probably have to eventually replace the PL-259 plug.

     /JBL
=
Nets: levin@bbn.com | "There were sweetheart roses on Yancey Wilmerding's
POTS: (617)873-3463 | bureau that morning. Wide-eyed and distraught, she
KD1ON (@KB4N.NH.USA) | stood with all her faculties rooted to the floor."
                     | -- S. J. Perelman

Date: 7 Oct 94 15:04:02 GMT
From: CCS_MAH@admin.fandm.EDU (Mark Hemlick Ph. D.)
Subject: Short radials on a vertical ant.

Hi to all:

I have an old Cushcraft AV5 trap vertical and want to ground mount it with the simplest radail system possible. Don't have much realestate to play with. Les Moxon, G6XN, in his book "HF Antennas for All Locations" writes extensively about physically short radials and counterpoises. In sum, he says that it is pointless to construct a "resonant" radial system, 1/4 wave radials should be avoided, and that one can get good results from "short, inductively loaded counterpoises". He states that he got good results on 14 mhz with four 40 in. radials commonly loaded with a 3 microH coil (6 turns, 3 in. diameter, 1 in. long, probably #12 or 14 wire). He goes on to say:"a good match at 14 mhz can be obtained by overwinding with a single-turn coupling cois spaced about 1/4 in from the main winding." (p 45). I'm not exactly sure what this second statement means. Is he saying that the vertical radiator is coupled to the radial system by this method?

Anyway, a few questions:

1. Anyone have any experience with using short radials, inductively loaded or not?

2. Could Moxon's system be used with the AV5?

3. Do Moxon's arguments "make sense" or is he a crank?

4. I was wondering...could I use my old cb magmount as an inductively loaded counterpoise for a 10 meter vertical by cutting off it's feedline and connecting its center conductor to the shield of the 10 meter vertical feed?

Thanks in advance!

73 Mark KA3LFG

Date: 6 Oct 1994 12:00:46 -0400
From: domonkos@access.digex.net (Andy Domonkos)
Subject: Superior coaxial line?

In article <fields.d.10.2E92C313@calc.vet.uga.edu>, David Fields wrote:
>
> Someone told me that if I'm going to run cable over 30-40 feet, that I need
> to use RG-8 (.60 a foot). Any thing umder this I can use RG-58 (.20 a foot).
>
> I to am looking into this, I have two possiblities. 1) is over 100 feet on
> top of an dusk-to-dawn light pole. (owner of pole is me not elec. co.).

> 2) is on top of house about 50 feet. Is over 100 feet to far to run cable or
> is shorter the better?
>
100 feet or more? Forget the RG-8, use Belden type 9913. Stiff as hell but
much less attenuation over long runs on the higher frequencies. It will make
a difference!

Andy

Date: 6 Oct 1994 18:09:08 GMT
From: jmesh@garnet.msen.com (Drs. Mesh P. C.)
Subject: Telrex and YO and AO

Has anyone out there established an AO or YO antenna file for any of the
Telrex HF monoband yagis?   The snow is comming quickly and a little time
saving would help alot here!   If you have an antenna file established in
a format that I can use with Brian Beezley's NEC software please let me
know either here or at CIS 73114,1403   ......de AA8NF / Joe

Date: 6 Oct 1994 16:32:42 GMT
From: jmesh@garnet.msen.com (Drs. Mesh P. C.)
Subject: Telrex and YO or AO

Does anyone have antenna files on hand for any of the old Telrex products
that are compatible with Brian Beezley's AO and YO software?

Thanks in advance ......de AA8NF / JOE

Date: Sat, 8 Oct 1994 03:35:18 GMT
From: alanb@hpnmarb.sr.hp.com (Alan Bloom)
Subject: using twin coax vs ladder line

Karl Beckman (CSLE87@email.mot.com) wrote:

: The "solution" of running two pieces of coaxial cable in parallel does not
: resolve these points. It only gives you a balanced shielded coaxial line
: with an impedance four times that of each single coax run.

It's two times the impedance of each coax. You're confusing it with
a balun.

To see that, imagine two equal-length 50-ohm coaxes fed 180 degrees out of

phase and each terminated with 50 ohms. You could unhook the shield end of each 50-ohm termination and tie them together with no change in voltage or current. (The tie point would still be zero volts.) You now have a 100-ohm balanced termination, which is twice the 50-ohm impedance of each coax.

AL N1AL

Date: 7 Oct 1994 09:03:29 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()

References<36uqti$he@news.CCIT.Arizona.EDU> <RFM.94Oct6113531@urth.eng.sun.com>, <371kbp$pb8@news.ccit.arizona.edu>
Subject: Re: HF antenna questions from newbie ham (semi-long)

>but most of the power it receives
>from the transmitter will be used heating up the coat hanger.
>
>I don't know - is this what happens?

I once did accidentally this experiment, not with a coat hanger
but with a bare PL plug. It was the coil in the ATU that started
to desintgrate.
About ATU's in general: many antennas present a wswr of 1:2 or
worse, when used axross the entire band it is designed for.
However, unlike tube amps, most transistor amps prefer
a wswr of better than 1:1.5 (reduction of power, distortion and sprogs)
this is where an ATU comes in. At a fairly low transforation ratio
tthey can be of low loss, if designed properly. Remember there
is an output matching transformer in every rig anyway between the
transistors ant the antenne socket.

73, Moritz DL5UH

Date: 7 Oct 1994 16:51:01 GMT
From: Cecil_A_Moore@ccm.ch.intel.com

References<36uqti$he@news.CCIT.Arizona.EDU> <RFM.94Oct6113531@urth.eng.sun.com>, <371kbp$pb8@news.ccit.arizona.edu>
Subject: Re: HF antenna questions from newbie ham (semi-long)

In article <371kbp$pb8@news.ccit.arizona.edu>,
Howard Lester <hlester@nemo.as.arizona.edu> wrote:

>The transmission line is not what's in question. We want to know about

>the coat hanger as an antenna (on HF). I'm suggesting the coat hanger will
>radiate some electromagnetic energy, but most of the power it receives
>from the transmitter will be used heating up the coat hanger.
>I don't know - is this what happens? >Howard Lester

Hi Howard, I think you will find that the coat hanger radiates almost 100%
of the RF that gets to it and won't get warm. However, very little RF
actually gets to the coat hanger. What does get warm is everything
else including the transmission line(s), the balun, the antenna tuner,
and maybe the transmitter final. You probably can't tell the difference
between a coat hanger and a shorted or open transmission line as far as
heat generated is concerned.
--
73, Cecil, KG7BK, OOTC   (All my own personal fuzzy logic, not Intel's)

Date: Fri, 7 Oct 1994 12:01:08 GMT
From: g8@mvuss.mv.att.com (-tentarelli k.d.)

References<36uqti$he@news.CCIT.Arizona.EDU> <RFM.94Oct6113531@urth.eng.sun.com>,
<371kbp$pb8@news.ccit.arizona.edu>
Subject: Re: HF antenna questions from newbie ham (semi-long)

In article <371kbp$pb8@news.ccit.arizona.edu>,
Howard Lester <hlester@nemo.as.arizona.edu> wrote:
>
>The transmission line is not what's in question. We want to know about
>the coat hanger as an antenna (on HF). I'm suggesting the coat hanger will
>radiate some electromagnetic energy, but most of the power it receives
>from the transmitter will be used heating up the coat hanger.
>
You can get a fair idea of how much power will be radiated by
looking at the efficiency curves for short vertical antennas in
the ARRL antenna handbook. In the typical case power will be lost
as heat in the coathanger, in whatever is serving as the ground
system, and in the antenna tuner.   If you use feedline between the
tuner and the coathanger then it too will get warm (published losses
for feedlines apply only when they are terminated in their characteristic
impedance - not when mismatched.)

It is possible to get reasonably high efficiencies using very short
vertical antennas. Over the years articles have been published on
DDDR (ring) antennas which do just that by using -- in effect --
large diameter coathangers with low loss ground screens and low
loss matching systems (large capacity hats).

Ken

Date: 7 Oct 1994 16:16:31 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()

References<RFM.94Oct6113531@urth.eng.sun.com> <371kbp$pb8@news.ccit.arizona.edu>,
<CxAxDw.2sM@nntpa.cb.att.com>
Subject: Re: HF antenna questions from newbie ham (semi-long)

>You can get a fair idea of how much power will be radiated by
>looking at the efficiency curves for short vertical antennas in
>the ARRL antenna handbook.

Ken,

I should like to know, how these curves have been obtained, because with a
short antenna there are to my knowledge two loss mechanism: (apart from
the steep radiation pattern, unfavourable for dx)

1) resistive losses in the antenna + matcher, wich take some effort
to minimize due to the low radiation resistance, but such designs
exist.

2) losses to the ground, the minimization if which would require
mounting the antenna high above ground, leading to a structure
similar to a full size antenna.

Or am I getting things wrong?

Moritz DL5UH

Date: Fri, 7 Oct 1994 22:39:12 GMT
From: zlau@arrl.org (Zack Lau (KH6CP))

References<36somp$43d@news.uncc.edu> <1994Oct5.140644.23655@arrl.org>,
<373266$30m9@info2.rus.uni-stuttgart.de>
Subject: Re: Feeding Yagis

DL5UH moritz@ipers1.e-technik.uni-stuttgart.de wrote:
: >Yes, when cost is no object, the preferred method is to bring it out behind
: >the reflector.

: Maybe I am missing something here, but what could possibly be the reason for
: bringing the cable out behind the antenna and nou along the boom and

: down the mast, like most people do?

The cable interacts with the antenna, degrading the pattern. This
isn't likely to be a problem on HF, but is something to seriously
consider on UHF, particularly when designing an EME array. You might
then ask about the interaction with the mast. Well, these serious
EME types rear mount the antennas, so that the mast is behind the
antennas.
--
Zack Lau KH6CP/1   2 way QRP WAS
                           8 States on 10 GHz
Internet: zlau@arrl.org   10 grids on 2304 MHz

End of Ham-Ant Digest V94 #336
****